APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

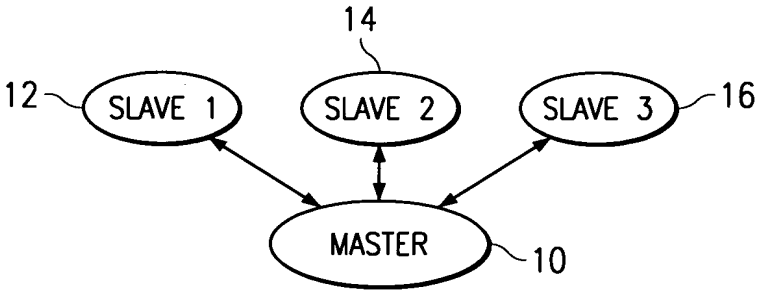


FIG. 1

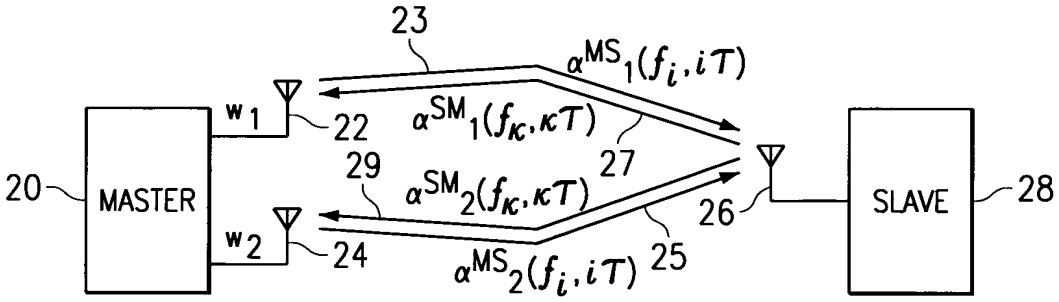


FIG. 2

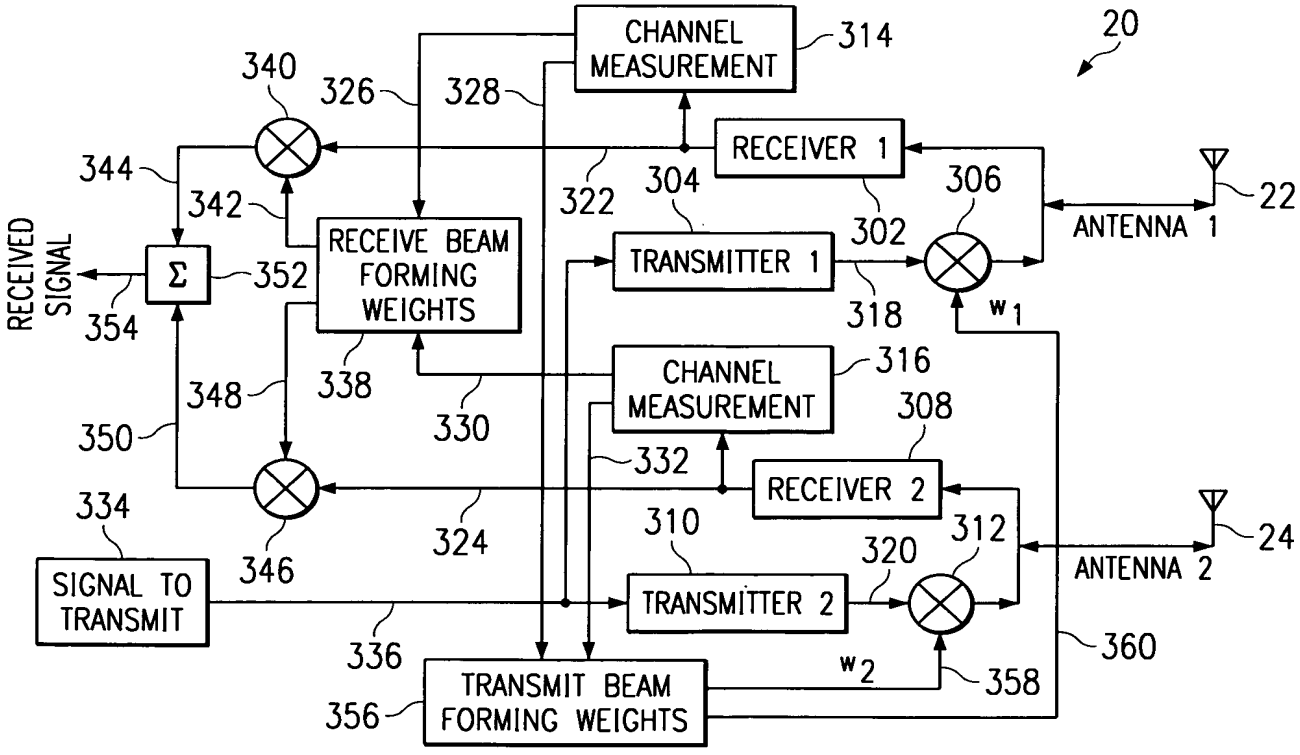


FIG. 3A

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 3B

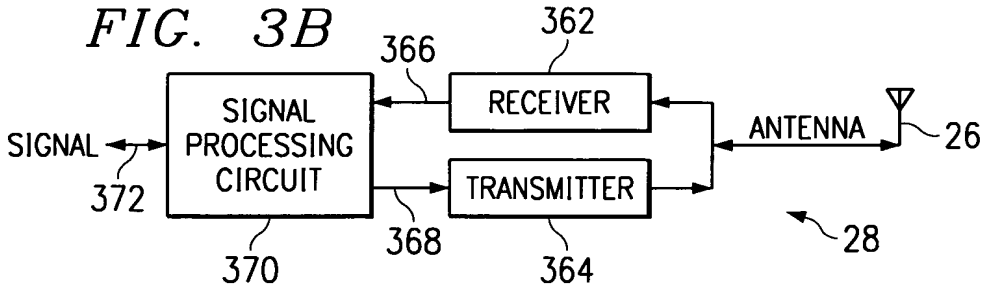


FIG. 4A

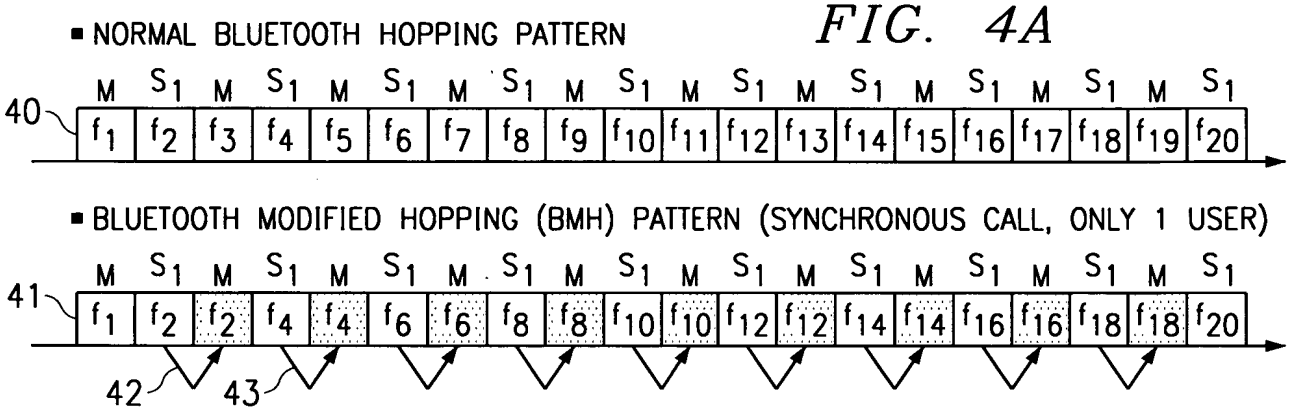


FIG. 4B

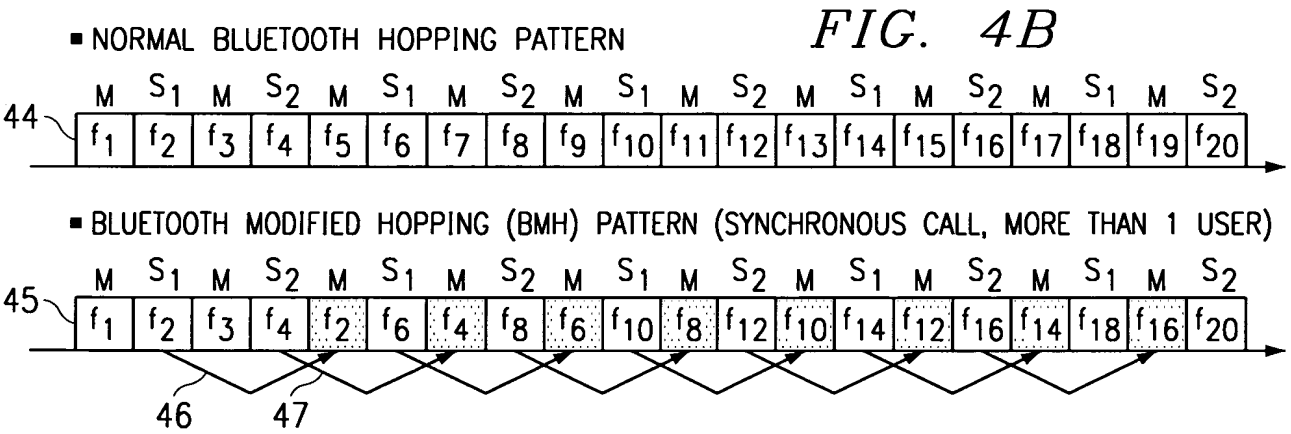
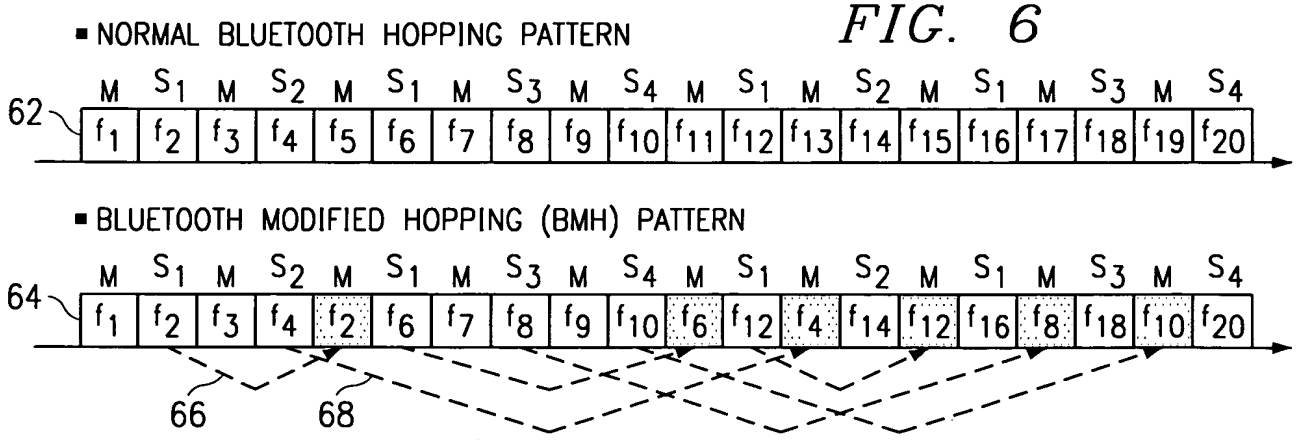


FIG. 6



APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS

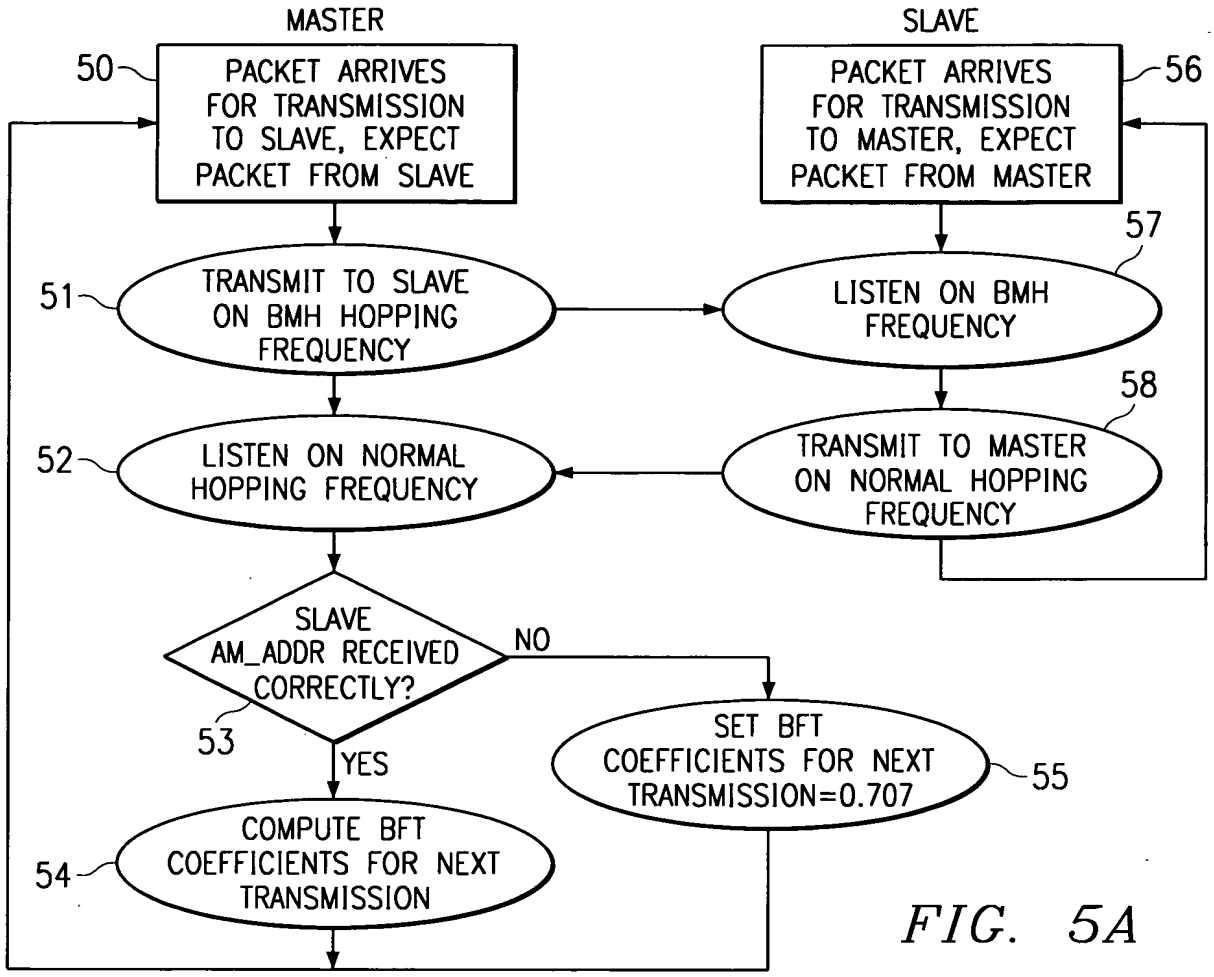


FIG. 5A

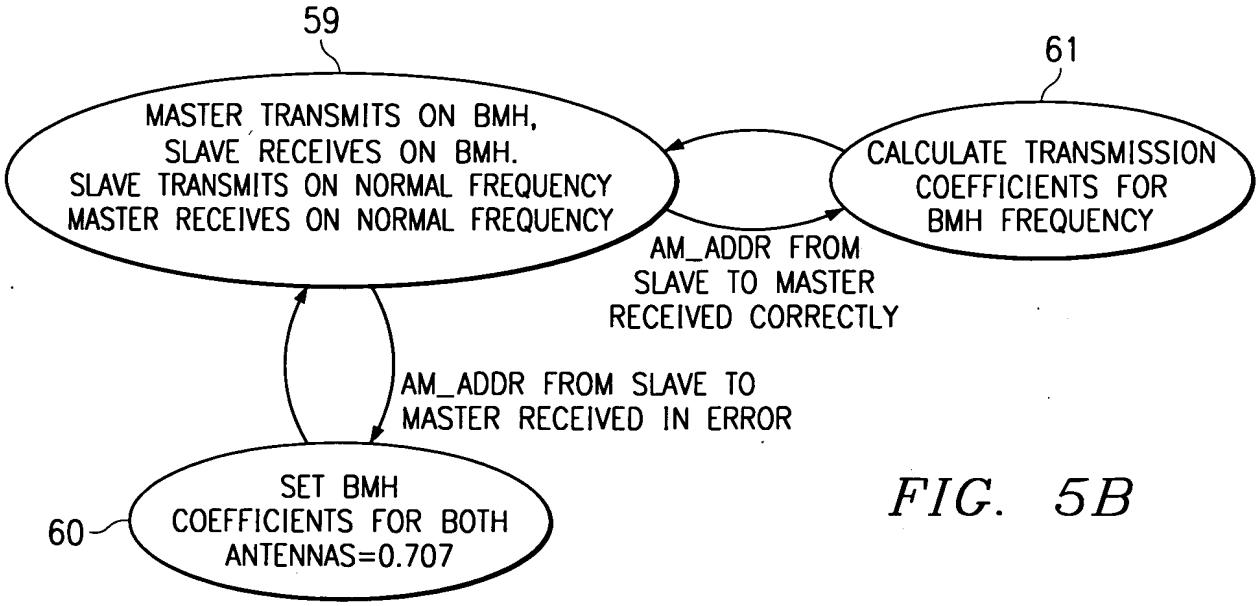


FIG. 5B

APPROVED BY DRAFTSMAN
O.G. FIG.
CLASS
SUBCLASS

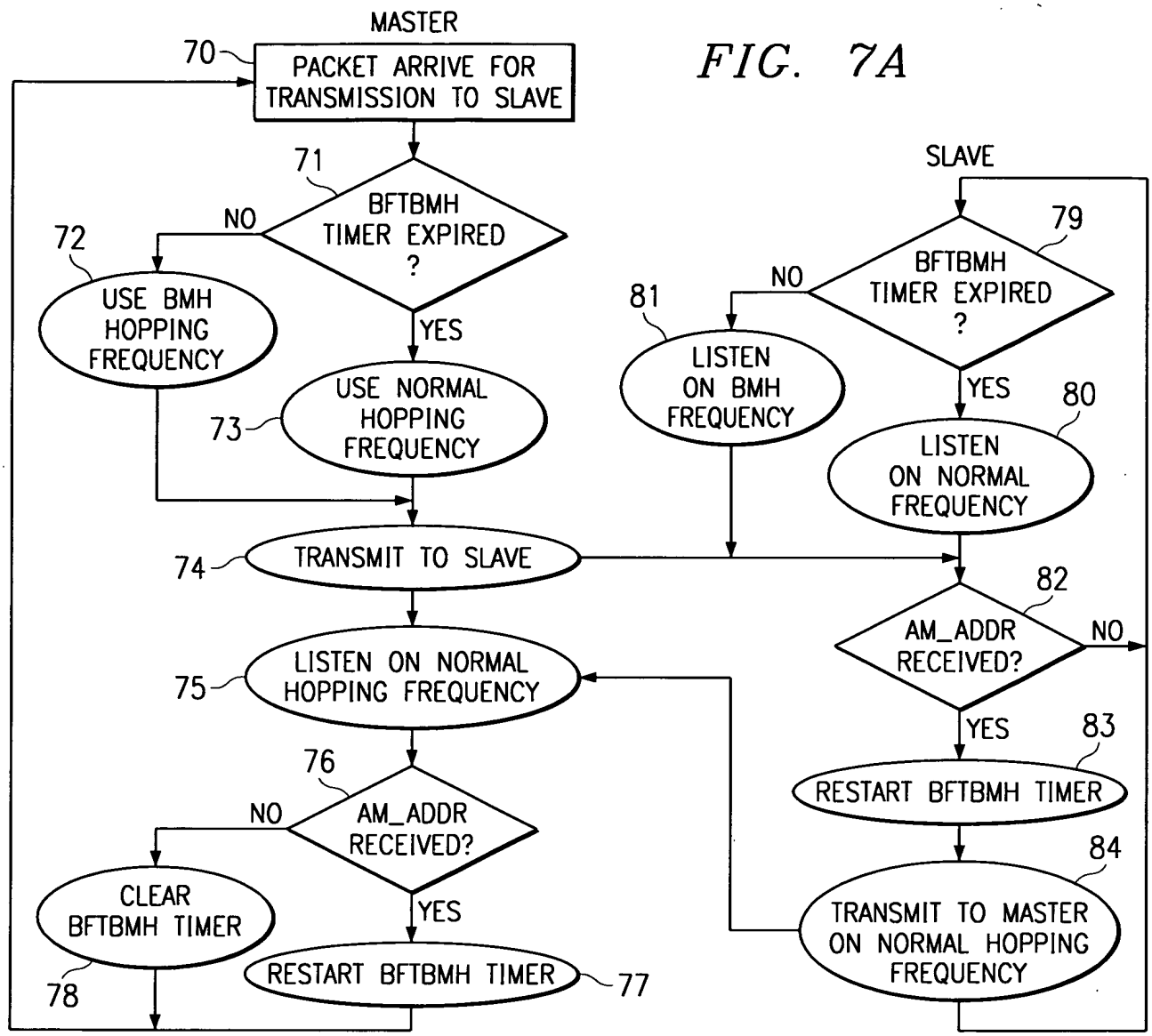


FIG. 7A

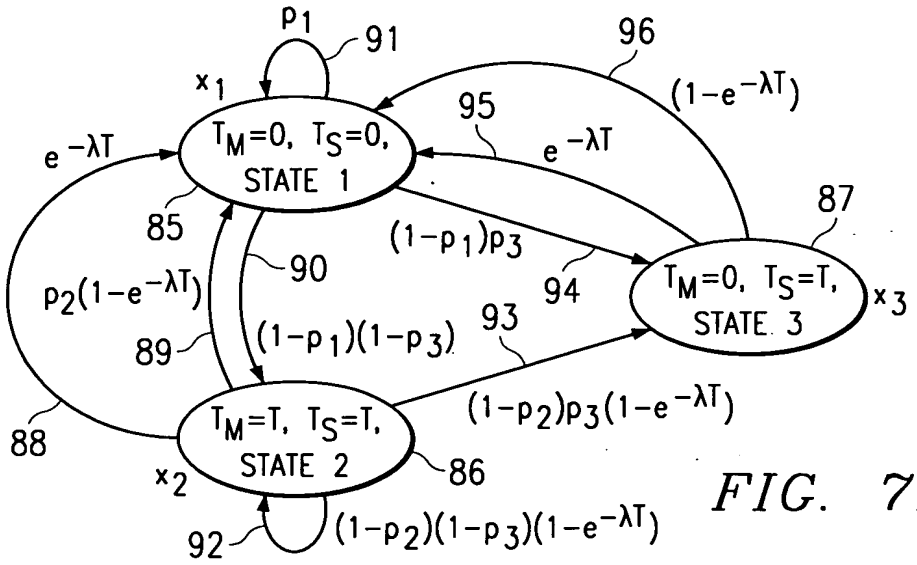


FIG. 7B

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 8A

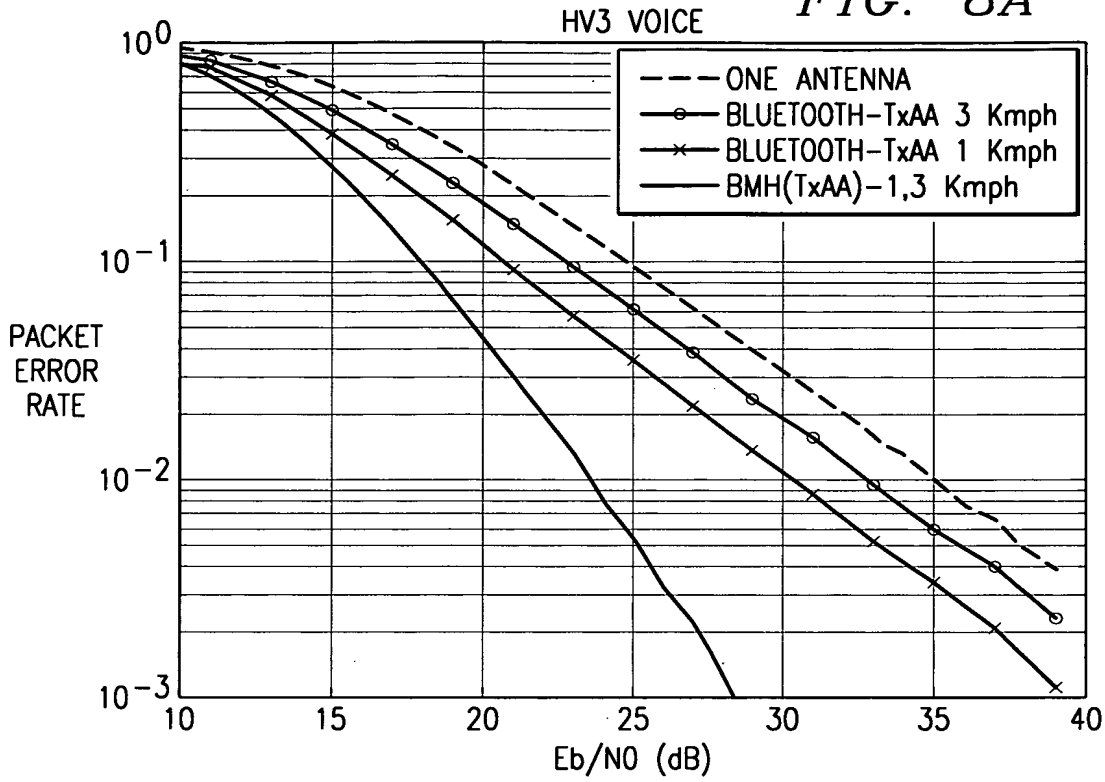


FIG. 8B

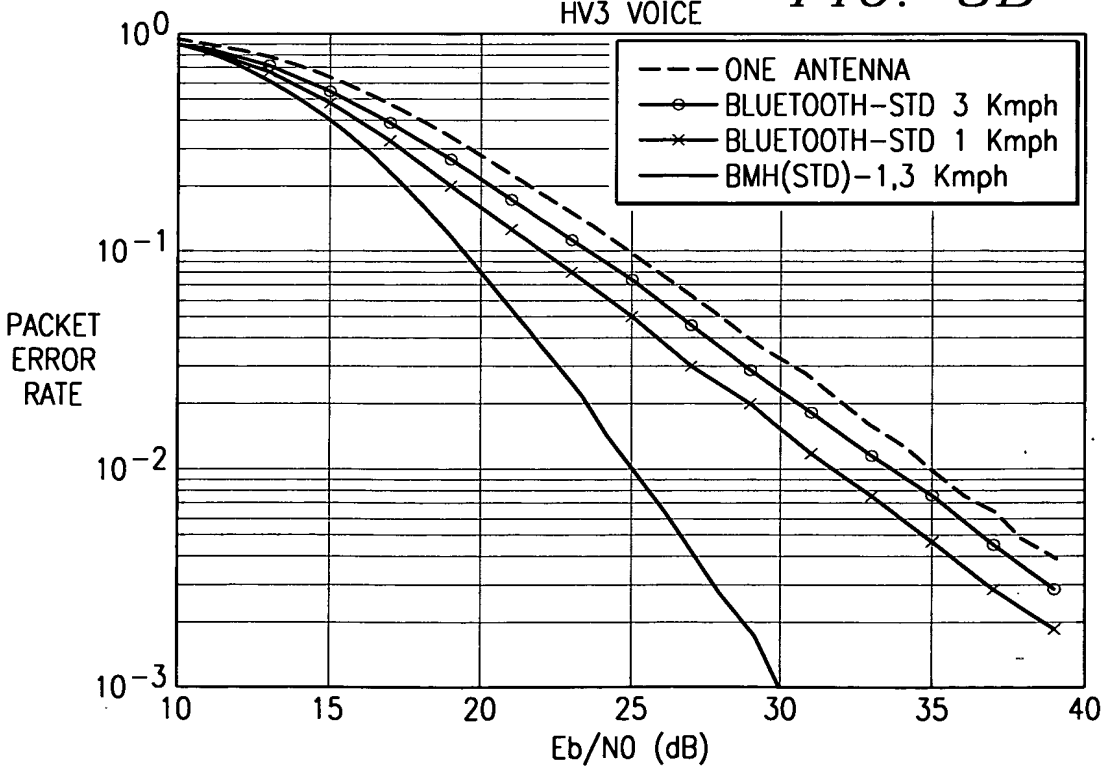


FIG. 8C

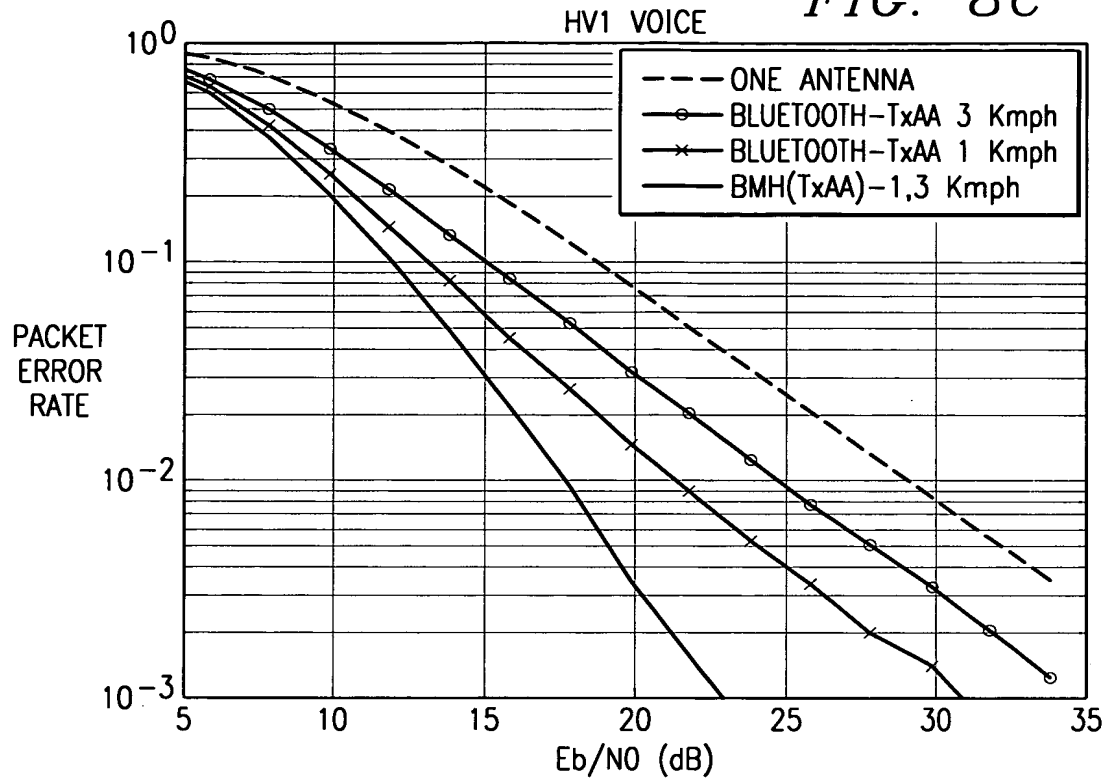
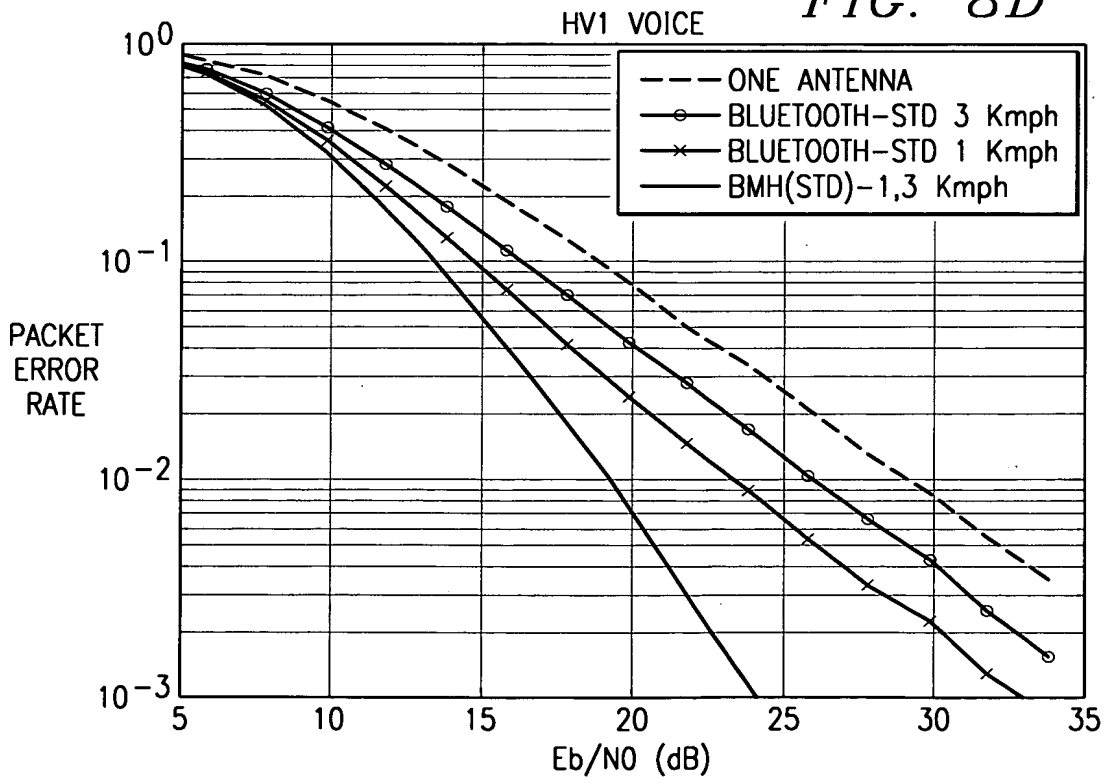

HV1 VOICE
ONE ANTENNA
BLUETOOTH-TxAA 3 Kmph
BLUETOOTH-TxAA 1 Kmph
BMH(TxAA)-1,3 Kmph
PACKET ERROR RATE
10^0
10^{-1}
10^{-2}
10^{-3}
5
10
15
20
25
30
35
Eb/N0 (dB)

FIG. 8D


HV1 VOICE
ONE ANTENNA
BLUETOOTH-STD 3 Kmph
BLUETOOTH-STD 1 Kmph
BMH(STD)-1,3 Kmph
PACKET ERROR RATE
10^0
10^{-1}
10^{-2}
10^{-3}
5
10
15
20
25
30
35
Eb/N0 (dB)

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

BFT GAINS OVER SINGLE ANTENNA TRANSMISSION	NORMAL BLUETOOTH HOPPING FREQUENCIES	BLUE MODIFIED HOPPING (BMH) FREQUENCIES
BFT (TxAA)		
HV3 VOICE, 3 Km/h	2.2 dB	11.6 dB
HV3 VOICE, 1 Km/h	4.7 dB	11.6 dB
HV1 VOICE, 3 Km/h	5.0 dB	11.6 dB
HV1 VOICE, 1 Km/h	8.3 dB	11.6 dB
BFT (STD)		
HV3 VOICE, 3 Km/h	1.2 dB	10 dB
HV3 VOICE, 1 Km/h	3.0 dB	10 dB
HV1 VOICE, 3 Km/h	3.2 dB	10 dB
HV1 VOICE, 1 Km/h	6.0 dB	10 dB

FIG. 9

BLUETOOTH DEVICE RANGE	NORMAL BLUETOOTH HOPPING FREQUENCIES	BLUE MODIFIED HOPPING (BMH) FREQUENCIES
BFT (TxAA)		
HV3 VOICE, 3 Km/h	1.2 x	2.4 x
HV3 VOICE, 1 Km/h	1.4 x	2.4 x
HV1 VOICE, 3 Km/h	1.5 x	2.4 x
HV1 VOICE, 1 Km/h	1.9 x	2.4 x
BFT (STD)		
HV3 VOICE, 3 Km/h	1.1 x	2.2 x
HV3 VOICE, 1 Km/h	1.3 x	2.2 x
HV1 VOICE, 3 Km/h	1.3 x	2.2 x
HV1 VOICE, 1 Km/h	1.6 x	2.2 x

FIG. 10

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 11

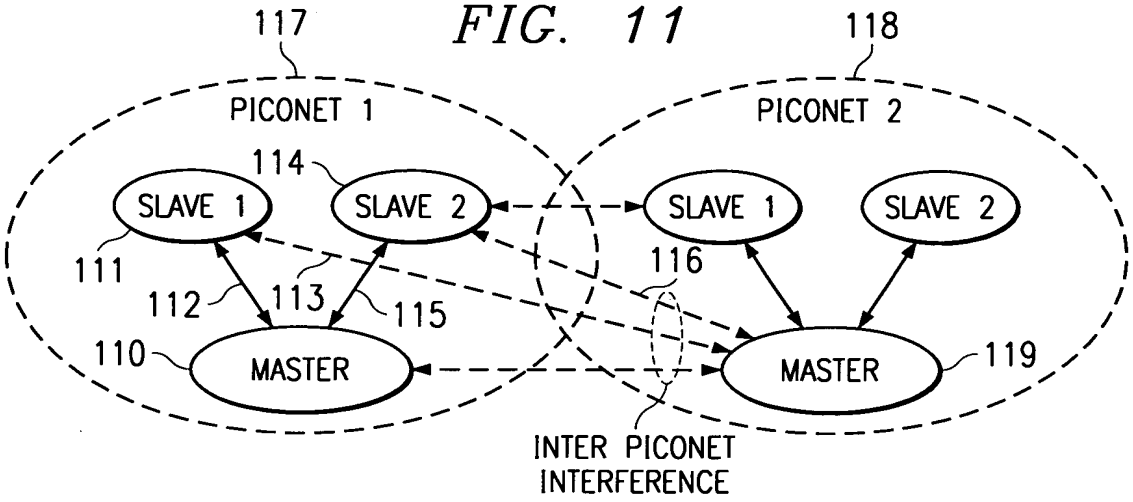
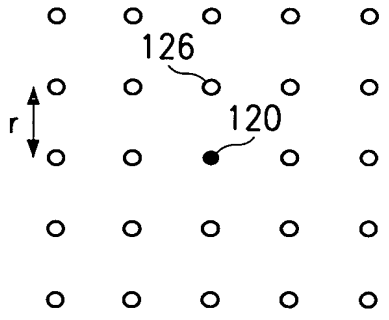
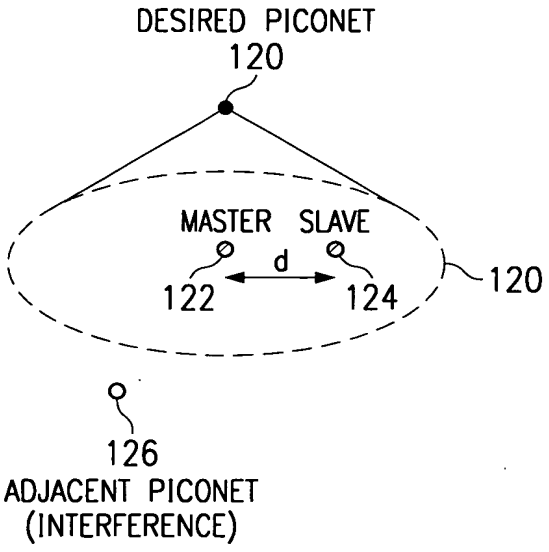


FIG. 12





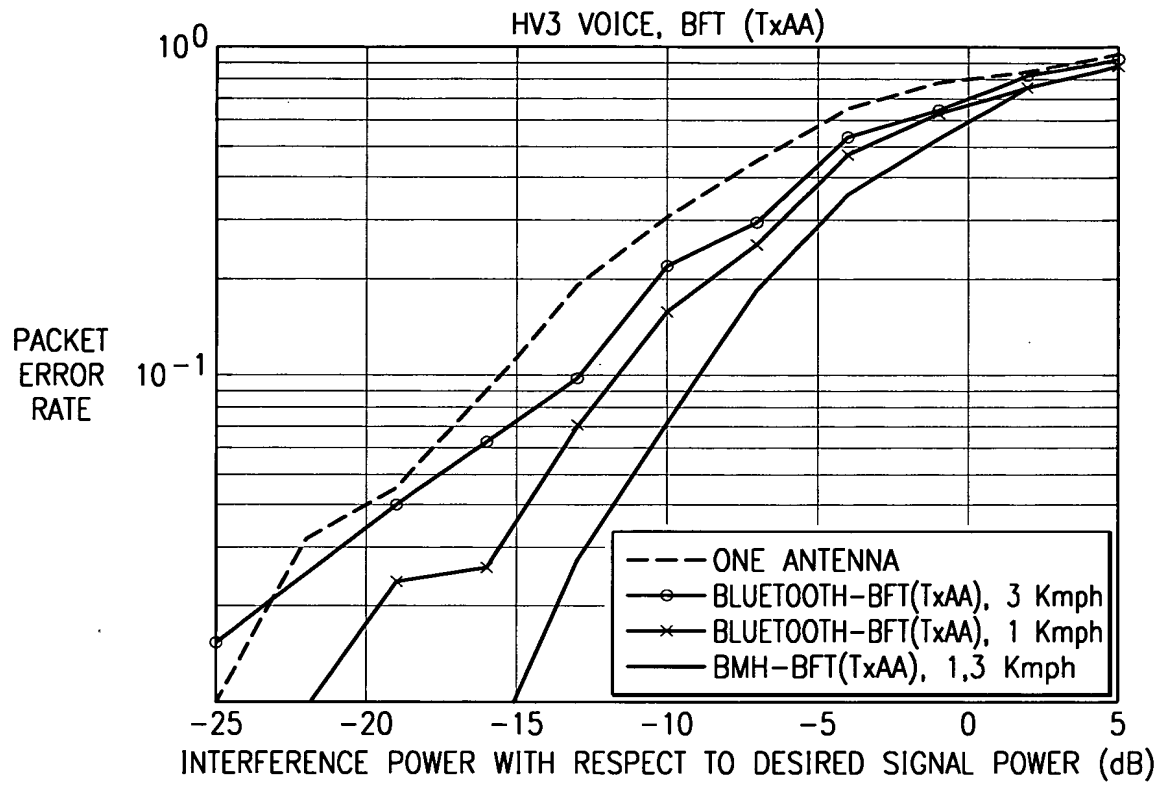


FIG. 13A

MAXIMUM NUMBER OF PICONETS SUPPORTED IN 10 m X 10 m AREA FOR A GIVEN PACKET ERROR RATE FOR HV3 VOICE, BFT (TxAA) FOR TWO ANTENNA TRANSMISSION								
	SINGLE ANTENNA TRANSMISSION		BLUETOOTH 3 Kmph		BLUETOOTH 1 Kmph		BMH	
	1 %	10 %	1 %	10 %	1 %	10 %	1 %	10 %
d=0.5 m	6	60	10	93	17	133	42	240
d=1.0 m	2	18	4	27	6	38	12	65
d=2.0 m	1	6	1.3	9	1.9	12	3.5	19
d=4.0 m	0.4	2	0.6	3.4	0.8	4.5	1.2	6
d=7.0 m	0.2	1.2	0.3	1.6	0.4	2.1	0.6	3
d=10.0 m	0.1	0.8	0.2	1.1	0.3	1.3	0.4	2

FIG. 13B

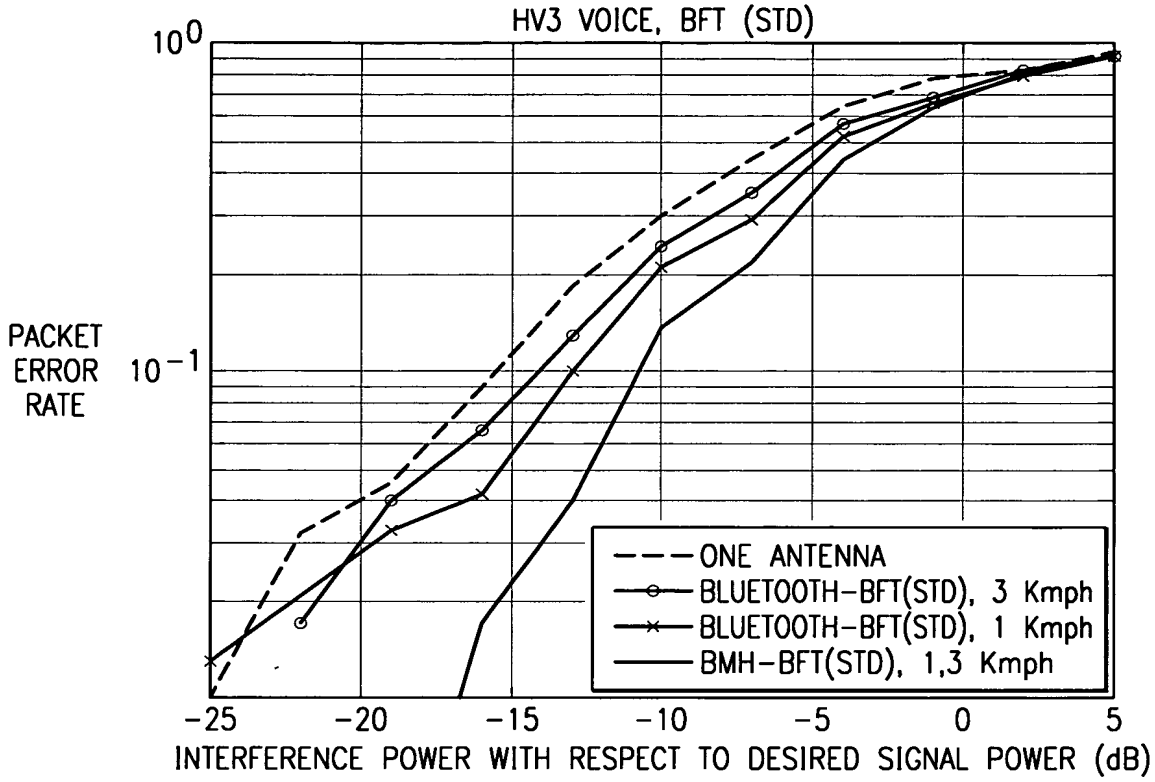


FIG. 14A

MAXIMUM NUMBER OF PICONETS SUPPORTED IN 10 m X 10 m AREA FOR A GIVEN PACKET ERROR RATE FOR HV3 VOICE, BFT (STD) FOR TWO ANTENNA TRANSMISSION								
	SINGLE ANTENNA TRANSMISSION		BLUETOOTH 3 Kmph		BLUETOOTH 1 Kmph		BMH	
	1 %	10 %	1 %	10 %	1 %	10 %	1 %	10 %
d=0.5 m	6	60	12	80	12	100	30	170
d=1.0 m	2	18	3.9	25	4.1	30	8.5	47
d=2.0 m	1	6	1.3	8.2	1.4	9.7	2.5	15
d=4.0 m	0.4	2	0.6	3.2	0.6	3.6	1	5.2
d=7.0 m	0.2	1.2	0.3	1.5	0.3	1.7	0.5	2.2
d=10.0 m	0.1	0.8	0.2	1	0.2	1.1	0.3	1.5

FIG. 14B

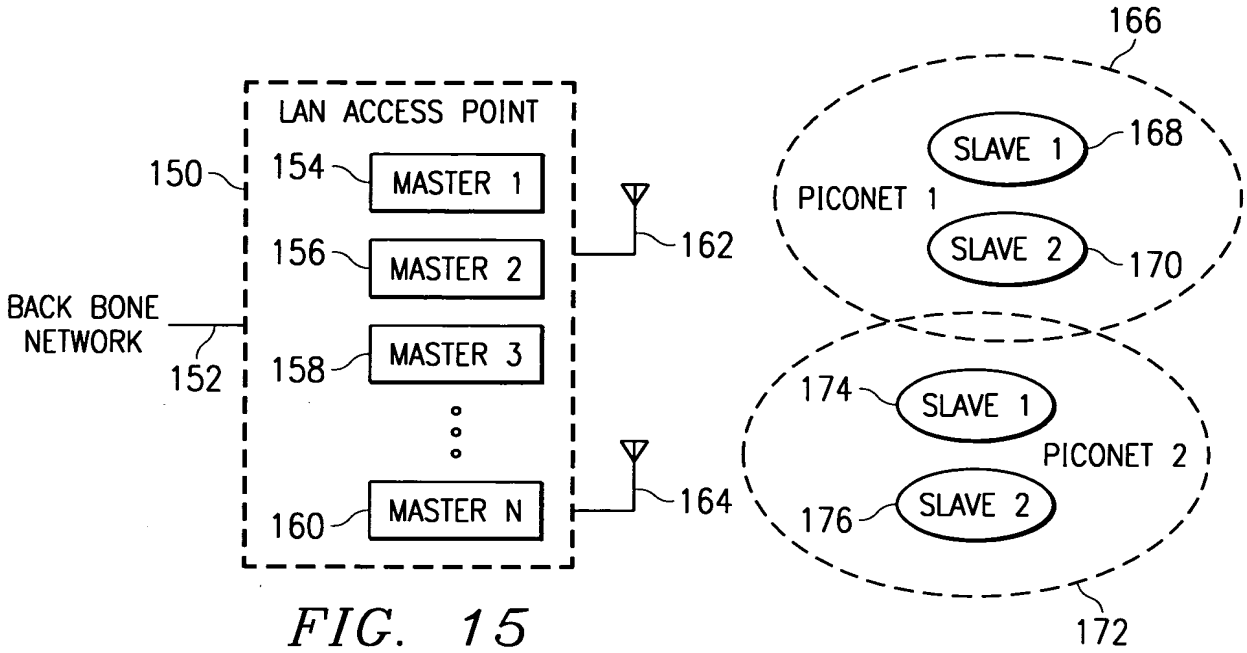


FIG. 15

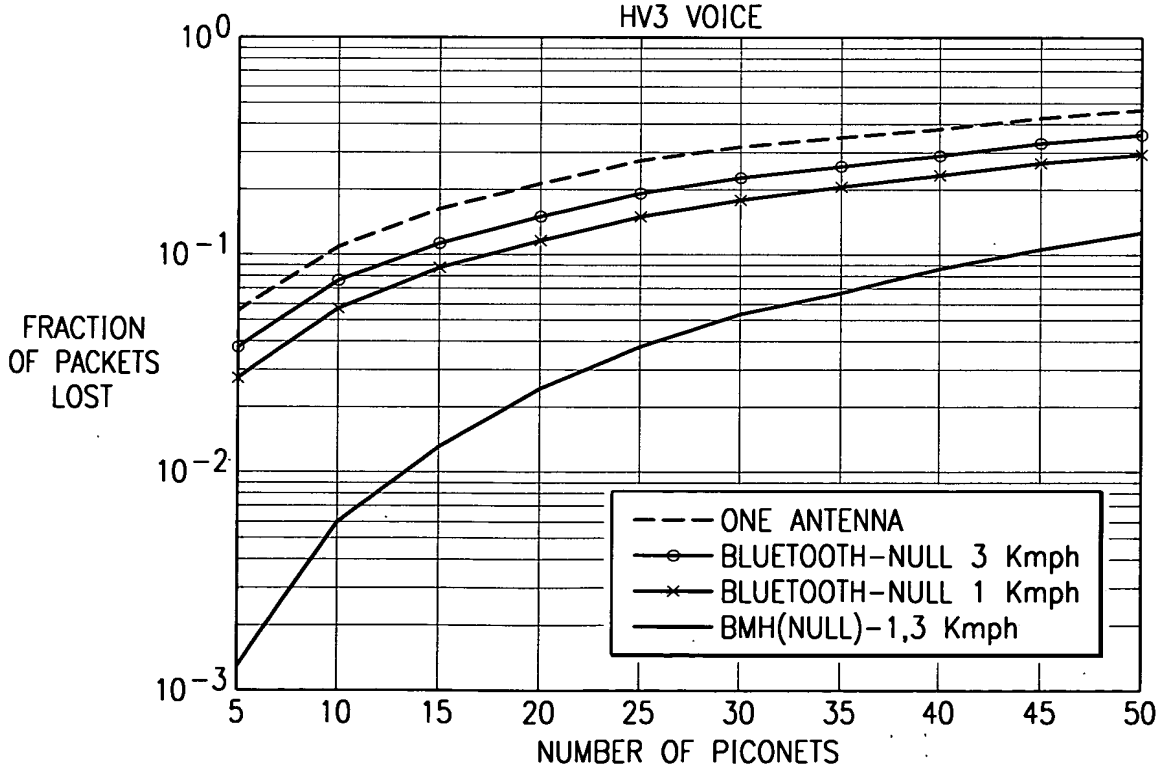


FIG. 16A

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

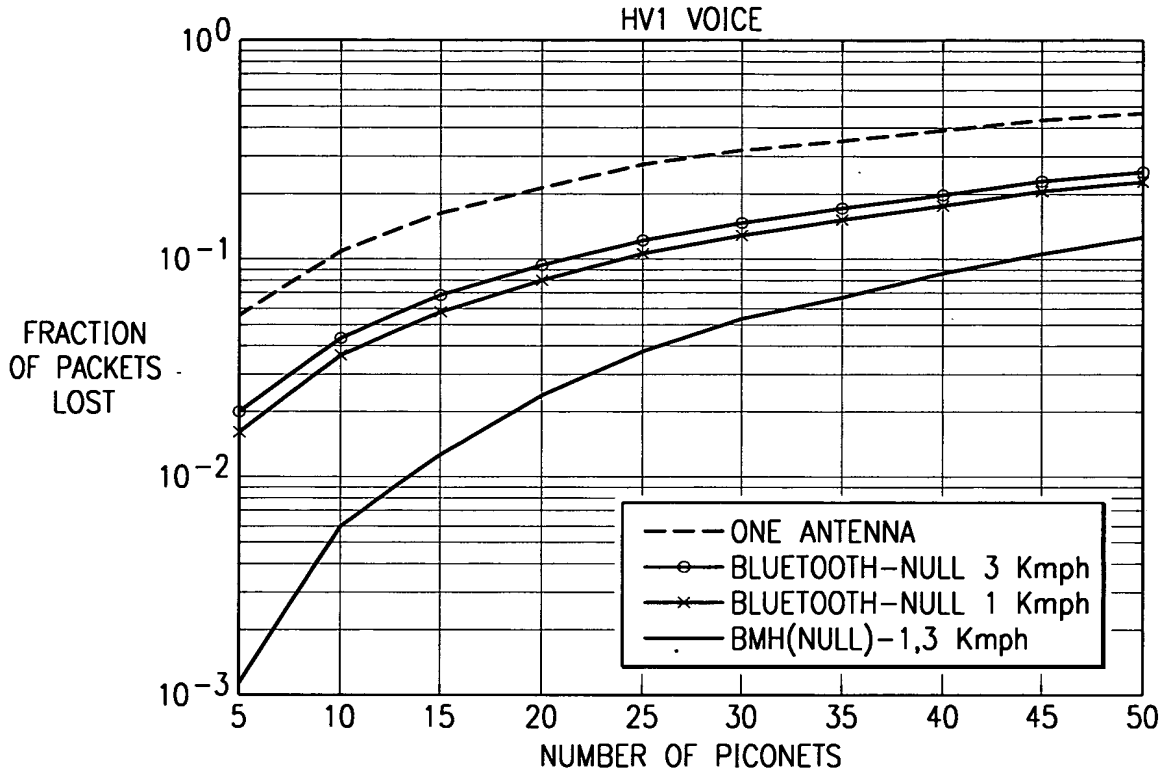


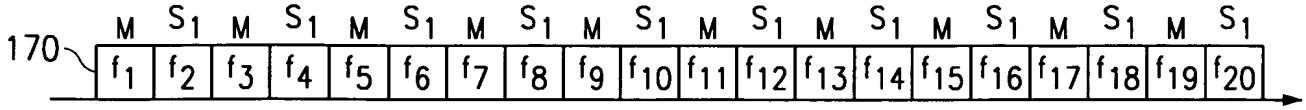
FIG. 16B

NUMBER OF PICONETS SUPPORTED AT LAN AP USING BFT(NULL) FOR TWO ANTENNA TRANSMISSION	SINGLE ANTENNA TRANSMISSION	BLUETOOTH 3 Kmph	BLUETOOTH 1 Kmph	BMH
	PACKET ERROR RATE 10 %	PACKET ERROR RATE 10 %	PACKET ERROR RATE 10 %	PACKET ERROR RATE 10 %
HV3 VOICE	9	13	16	43
HV1 VOICE	9	21	24	43

FIG. 16C

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

- NORMAL BLUETOOTH HOPPING PATTERN



- BLUETOOTH MODIFIED HOPPING (BMH) PATTERN (SYNCHRONOUS CALL, ONLY 1 USER), MASTER HAVING SINGLE ANTENNA, S_1 HAVING TWO ANTENNAS

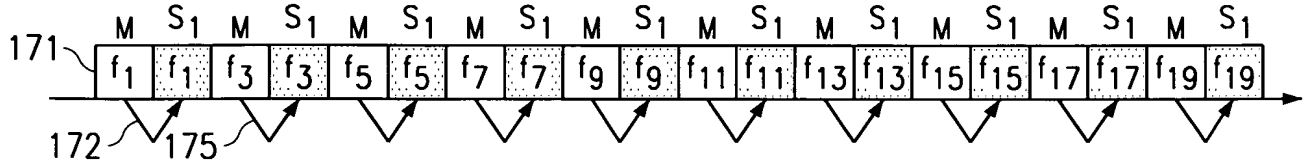
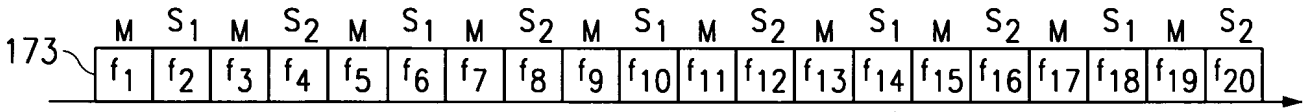


FIG. 17A

- NORMAL BLUETOOTH HOPPING PATTERN



- BLUETOOTH MODIFIED HOPPING (BMH) PATTERN (SYNCHRONOUS CALL, MORE THAN 1 USER), MASTER HAVING SINGLE ANTENNA, S_1 HAVING TWO ANTENNAS AND S_2 HAVING SINGLE ANTENNA

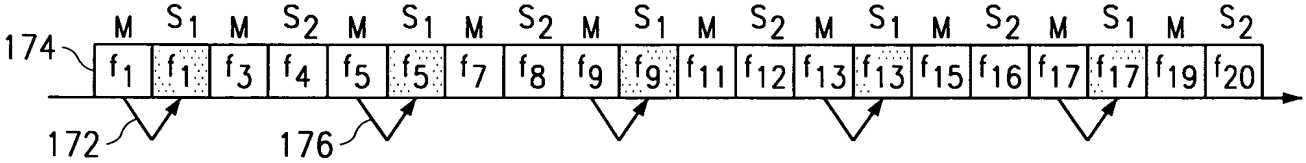
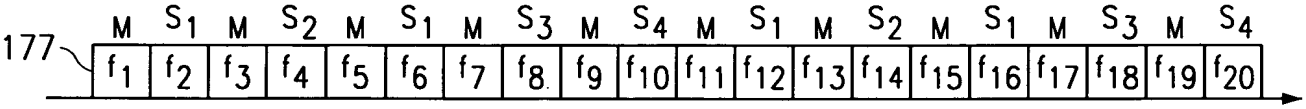


FIG. 17B

- NORMAL BLUETOOTH HOPPING PATTERN



- BLUETOOTH MODIFIED HOPPING (BMH) PATTERN, MASTER HAVING SINGLE ANTENNA, S_1, S_2 HAVING MULTIPLE ANTENNAS, S_3, S_4 HAVING SINGLE ANTENNA

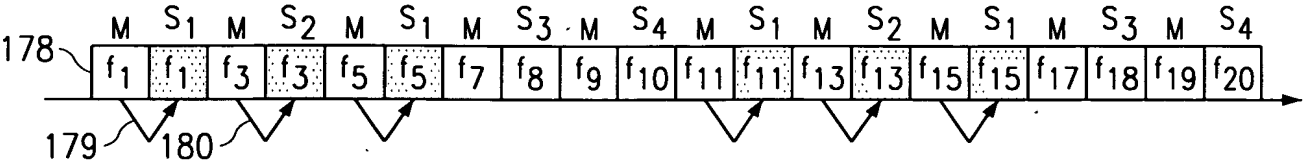


FIG. 17C